

# Parlay X in MMTel

## INTERWORK DESCR

© Ericsson AB 2012

### **Disclaimer Statements**

No part of this document may be reproduced in any form without the written permission of the copyright owner.

The contents of this document are subject to revision without notice due to continued progress in methodology, design, and manufacturing.

Ericsson shall have no liability for any error or damages of any kind resulting from the use of this document.

### **Trademark List**

All trademarks are the property of their respective owners.

# Contents

<b>1</b>	<b>Document History .....</b>	<b>4</b>
<b>2</b>	<b>Scope and Purpose .....</b>	<b>4</b>
2.1	Scope .....	4
2.2	Interface Entities .....	4
2.3	Interface Role .....	5
2.4	Services .....	5
2.5	Encapsulation and Addressing .....	5
2.5.1	Parlay X Interface .....	5
2.5.2	HTTP Content-Type .....	5
2.5.3	Parlay X port .....	6
<b>3</b>	<b>Procedures .....</b>	<b>6</b>
3.1	Overview .....	6
3.2	Lower Level Procedures .....	6
3.3	NotifyCallEventRequest .....	6
<b>4</b>	<b>Information Model .....</b>	<b>7</b>
4.1	General .....	7
4.2	CallNotification Service .....	7
4.2.1	NotifyCallEvent .....	7
4.2.2	Service Policies .....	8
<b>5</b>	<b>Formal Syntax or Schema .....</b>	<b>8</b>
<b>6</b>	<b>Related Standards .....</b>	<b>8</b>
<b>7</b>	<b>Terminology .....</b>	<b>8</b>
7.1	Abbreviations .....	8
7.2	Definitions .....	9
<b>8</b>	<b>References .....</b>	<b>9</b>
<b>9</b>	<b>Annex A: Interface examples .....</b>	<b>9</b>
9.1	NotifyCallEvent .....	9
9.1.1	NotifyCallEventRequest .....	9
9.1.2	NotifyCallEventResponse .....	9

# 1 Document History

Rev	Date	Sign	Comment
A	2012-09-26	ELEERIK	Clone from 3/155 19-CRA 119 2109 rev A

# 2 Scope and Purpose

## 2.1 Scope

The scope of this document is to describe the support MTAS offers for Parlay X when the Parlay X application interacts with MMTel services.

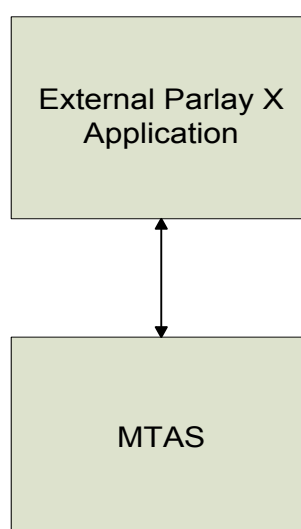
Authentication and authorization are also out of scope.

## 2.2 Interface Entities

MTAS can notify an external Parlay X application when an MMTel call occurs. This is done using the Parlay X interface CallNotification in ref [2] When using this Parlay X interface, MTAS will have the role as client.

This document describes how MTAS deploys this interface.

Any routers or proxies that may be installed between MTAS and the External Parlay X application are excluded from the scope of this document.



*Figure 1 MTAS and External Parlay X application connectivity*

## 2.3 Interface Role

For the parts of the Parlay X interface covered by this document, MTAS has the role as client.

## 2.4 Services

*Table 1: Offered Services*

Offered Service as Parlay X server	Description
-	-

*Table 2: Used Services*

Used Service as Parlay X client	Description
CallNotification	Notify the Parlay X application when call events occur in the network.

## 2.5 Encapsulation and Addressing

### 2.5.1 Parlay X Interface

The protocol on the Parlay X interface is defined by 3GPP and is described in [1] and [2].

MTAS supports SOAP version 1.1. On network layer either IPv4 or IPv6 can be used.

The services used on this interface are listed in Table 2.

The services offered on this interface are listed in Table 1

Only a subset of the services are used/offered by MTAS. The subset is described in Table 3.

### 2.5.2 HTTP Content-Type

MTAS expects the Content-Type: text/xml for all SOAP messages.

2.5.3 Parlay X port

MTAS sends Parlay X requests to the port provisioned in the served users subscriber data.

3 Procedures

3.1 Overview

The used service is specified by the operations used on the interface. The used service operation is:

Table 3 Used Operations

Service	Operation
CallNotification	NotifyCallEvent

3.2 Lower Level Procedures

N/A

3.3 NotifyCallEventRequest

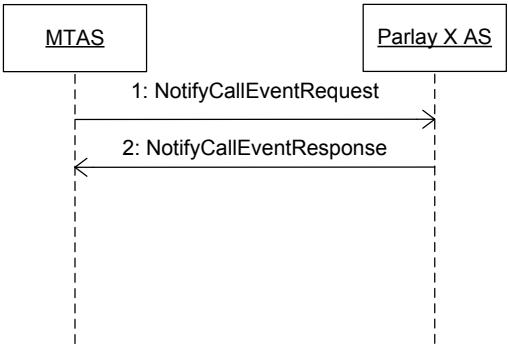


Figure 2 NotifyCallEvent

- 1. MTAS sends a notification of a call event.
- 2. MTAS receives the response.

## 4 Information Model

### 4.1 General

This section describes the requests that is sent by MTAS and the responses received by MTAS.

### 4.2 CallNotification Service

#### 4.2.1 NotifyCallEvent

MTAS uses the following parameters in the NotifyCallEventRequest:

*Table 4 Parameters for NotifyCallEventRequest*

Parameter	M/O	Comment
Correlator	M	MTAS sends the content of the P-Served-User including session case. If not available, MTAS will send the P-Asserted-Id and the session case "orig" if the Parlay X application is invoked from an originating Parlay X session or the Request-URI and the session case "term" if the Parlay X application is invoked from an terminating Parlay X session.
EventNotified	M	See table Table 5.
CallingParticipant	M	MTAS sends the content of the P-Asserted-Id header. If the P-Asserted-Id header isn't available, MTAS sends "sip:unknown@unknown.invalid". For an originating Parlay X session on a terminating MTAS, MTAS sends the identity of the served user.
CallingParticipantName	O	MTAS sends the display name part of the P-Asserted-Id if available. For an originating Parlay X session on a terminating MTAS, MTAS does not include any name.
CalledParticipant	M	MTAS sends the content of the Req-URI including URI parameters.
CallSessionIdentifier	O	MTAS sends the ICID value for this call leg.

M=Mandatory, O=Optional

*Table 5 Parameters for EventNotified*

Parameter	M/O	Comment
CallEvent	M	See table Table 6.

Description	O	Not sent by MTAS.
-------------	---	-------------------

M=Mandatory, O=Optional

*Table 6 Values for CallEvent used by MTAS*

Value	Comment
Busy	Used by MTAS to indicate that any of the SIP responses 486 Busy Here or 600 Busy Everywhere was received.
NotReachable	Used by MTAS to indicate that any of the SIP responses 4XX (except 401, 407, 408, 480, 486), 5xx, or 6xx (except 600, 603) was received.
NoAnswer	Used by MTAS to indicate that any of the SIP responses 603 Decline, 408 Request Timeout or 480 Temp Unavailable was received.
CalledNumber	Used by MTAS to indicate that a SIP INVITE was received.
Answer	Used by MTAS to indicate that a SIP 200 OK was received.
Disconnected	Used by MTAS to indicate that a SIP BYE was received on an established SIP session.

M=Mandatory, O=Optional

The NotifyCallEventResponse contains no parameters.

## 4.2.2 Service Policies

No service policies are applied by MTAS.

# 5 Formal Syntax or Schema

The formal syntax is described in [1] and [2].

# 6 Related Standards

See [1] and [2].

# 7 Terminology

## 7.1 Abbreviations

ICID     IMS Charging Identifier



## 7.2 Definitions

-

## 8 References

- [1] 3GPP TS 29.199-1 v8.1.0, Common
- [2] 3GPP TS 29.199-3 v8.2.0, Call Notification

## 9 Annex A: Interface examples

### 9.1 NotifyCallEvent

#### 9.1.1 NotifyCallEventRequest

Below is an example of a NotifyCallEventRequest from MTAS to the External Parlay X application where MTAS notifies the Parlay X Application about a call sretup attempt.

```
<?xml version="1.0" encoding="UTF-8"?>

<SOAP-ENV:Envelope
  xmlns:SOAP-ENV=http://schemas.xmlsoap.org/soap/envelope/
  xmlns:ns2="http://www.csapi.org/schema/parlayx/call_notification/v4_2/local">

  <SOAP-ENV:Header/>

  <SOAP-ENV:Body>
    <ns2:notifyCallEvent>
      <ns2:correlator>sip:A@ericsson.com;orig</ns2:correlator>
      <ns2:eventNotified><ns2:callEvent>CalledNumber</ns2:callEvent>
      </ns2:eventNotified>
      <ns2:callingParticipant>sip:A@ericsson.com</ns2:callingParticipant>
      <ns2:calledParticipant>sip:B@ericsson.com</ns2:calledParticipant>
      <ns2:callSessionIdentifier>1933554177</ns2:callSessionIdentifier>
    </ns2:notifyCallEvent>
  </SOAP-ENV:Body>

</SOAP-ENV:Envelope>
```

#### 9.1.2 NotifyCallEventResponse

Below is an example of a NotifyCallEventResponse from the External Parlay X application to MTAS.

```
<?xml version="1.0" encoding="UTF-8"?>

<SOAP-ENV:Envelope
```

```
xmlns:SOAP-ENV='http://schemas.xmlsoap.org/soap/envelope/'  
xmlns:ns4='http://www.csapi.org/schema/parlayx/call_notification/v4_2/local'>  
  
<SOAP-ENV:Body>  
  <ns4:notifyCallEventResponse/>  
</SOAP-ENV:Body>  
  
</SOAP-ENV:Envelope>
```